

WHAT IS CLAIMED IS:

1. A process for producing 4-(1H-1,2,4-triazol-1-ylmethyl)benzonitrile of Formula (Structure 2), the process comprising, reacting a salt of 1,2,4-triazole of Formula (Structure 4) with α -halo substituted tolunitrile of Formula (Structure 3) in the presence of a suitable solvent, wherein the reaction is carried out by charging in the solvent followed by addition of a salt of 1,2,4-triazole of Formula (Structure 4) at 25-30°C, adding a solution of α -halo substituted tolunitrile of Formula (Structure 3) in the solvent at 10°C; stirring the same for 2 hours at 10 to 15°C; adding demineralized water and extracting with dichloromethane; distilling out the organic layer; crystallizing the same using a crystallizing agent to obtain 4-(1H-1,2,4-triazol-1-ylmethyl)benzonitrile of Formula (Structure 2).
2. The process according to claim 1, wherein X represents an alkali metal selected from a group comprising Li, Na, or K.
3. The process according to claim 2, wherein X represents Na.
4. The process according to claim 1, wherein Y represents a halogen selected from Cl, Br or I.
5. The process according to claim 4, wherein Y represents Br.
6. The process according to claim 1, wherein the suitable solvent is tetrahydrofurane or dimethylformamide.
7. The process according to claim 6 wherein the preferred solvent is dimethylformamide.

8. The process according to claim 1, wherein the crystallizing agent is an organic solvent selected from a group comprising isopropyl alcohol, toluene or diisopropyl ether.

9. The process according to claim 8, wherein the preferred organic solvent is diisopropyl ether.

10. A process for producing 4-(1H-1,2,4-triazol-1-ylmethyl)benzonitrile of Formula (Structure 2), the process comprising:

charging dimethylformamide followed by addition of sodium salt of 1,2,4 triazole at 25-30°C;

adding a solution of α -bromo-4-tolunitrile in dimethylformamide at 10°C;

stirring the same for 2 hours at 10 to 15°C;

adding demineralized water and extracting with dichloromethane;

distilling out the organic layer; and

crystallizing the same in diisopropyl ether to obtain 4-(1H-1,2,4-triazol-1-ylmethyl)benzonitrile of Formula (Structure 2).

11. The process according to claim 10 further comprising:

reacting 4-(1H-1,2,4-triazol-1-ylmethyl)benzonitrile of Formula (Structure 2), with 4-fluorobenzonitrile and potassium tertiary butoxide to produce 4,4'-[1H-1,2,4-triazol-1-ylmethylene]bisbenzonitrile of Formula (Structure 1).

12. A process for producing 4,4'-[1H-1,2,4-triazol-1-ylmethylene]bisbenzonitrile of Formula (Structure 1), the process comprising reacting 4-(1H-1,2,4-triazol-1-ylmethyl)benzonitrile of Formula (Structure 2) produced according to the processes recited in any of claims 1 through to 11, the process comprising, reacting 4-(1H-1,2,4-triazol-1-ylmethyl)benzonitrile of Formula (Structure 2) with 4-fluorobenzonitrile and potassium tertiary butoxide

to produce 4,4'-[1H-1,2,4-triazol-1-ylmethylene]bisbenzonitrile (Letrozole) of Formula (Structure 1).